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10/808,218	03/24/2004	Kazuya Ueda	1324.70174	3929

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EXAMINER	
CHEN, WEN YING PATTY	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/808,218	UEDA ET AL.	
	Examiner	Art Unit	
	WEN-YING PATTY CHEN	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,12,13,15 and 27-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-10,12,13,15,27,28 and 30-39* is/are rejected.

7)☒ Claim(s) *4 and 29* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/06/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The Amendment filed on Apr. 7, 2008 has been entered. Claim 14 is cancelled per the Amendment filed, therefore, claims 1-10, 12, 13, 15 and 27-39 remain pending in the current application.

Claim Objections

Claims 27-30 are objected to because of the following informalities: Line 4 of each of claims 27-30 recite the limitation of "the plurality of color filter layers", which lack antecedent basis, hence should be changed to recite "the color filter layers". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 8-10, 12-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawasaki et al. (US 2003/0043326) in view of Yoshida et al. (US 5936693).

With respect to claim 1 (Amended): Sawasaki discloses in Figure 17 a liquid crystal display comprising:

a pair of substrates (element 12) provided opposite to each other with one of the substrates having a pixel electrode (element 14) and the other of the substrates having a common electrode (element 18);

a liquid crystal (element LC) sealed between the pair of substrates; and

a pixel region including at least one low effective voltage area (region corresponding to where element 56 is formed) in which an effective voltage applied by the pixel and the common electrodes to the liquid crystal is lower than a voltage applied between the pixel and the common electrodes at another area (region where element 56 is not formed), the at least one low effective

voltage area occupying part of the region in a predetermined area ratio, the pixel region having a threshold voltage that is different between the at least one low effective voltage area and the another area (wherein when the effective voltages are different, the threshold voltage is also different), and

the pixel region also including a color filter layer (elements B, G) having one color formed on at least one of the pair of substrates,

wherein the low effective voltage area has an effective voltage decreasing slit (element 20), formed on at least one of the electrodes, and

wherein the liquid crystal is a nematic liquid crystal having negative dielectric constant anisotropy whose initial alignment is vertical to a surface of the substrates when no voltage is applied between the pixel and common electrodes (Paragraphs 0078-0079).

Sawasaki does not disclose that the effective voltage in the pixel region is different from that in another pixel region including a color filter layer having another color such that the effective voltage in the low effective voltage areas associated with the blue color filter is lower than the effective voltage in the low effective voltage areas associated with color filters of colors other than blue.

However, Yoshida teaches in Figure 29 and Column 18 lines 8-26 of forming effective voltage in the pixel region including one color filter layer of one color different from that in another pixel region including a color filter layer having another color such that the effective voltage in the low effective voltage areas associated with the blue color filter is lower than the effective voltage in the low effective voltage areas associated with color filters of colors other

than blue (wherein the low effective area of the blue color filter is larger than the red and the green color filters).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a liquid crystal display device as taught by Sawasaki wherein the effective voltage of one pixel region of one color is different from that of another pixel region of another color as taught by Yoshida, since Yoshida teaches that such configuration between the different colored pixel regions helps to obtain images having a good color balance with compensation made for the differences in brightness among the different colored pixels (Column 18, lines 20-26).

As to claim 8: Yoshida et al. further teach in Column 18 lines 8-12 of forming different area ratios with respect to the center transmission wavelength λ of the color filter layer that the pixel region has.

As to claim 9: Sawasaki further discloses in Figure 17 that the low effective voltage area has a dielectric layer (element 56) formed with a predetermined thickness on at least one of the electrodes (element 14).

As to claim 10: Sawasaki further discloses in Figure 17 that the dielectric layer (element 56) is formed like stripes having a predetermined layer width and gap width (as shown in Fig. 7 where the dielectric layer is formed corresponding to the regions of element 20, thus is formed like stripes having a predetermined layer width and gap width).

As to claim 12: Sawasaki further discloses in Figure 17 that the effective voltage decreasing slit (element 20) is formed like stripes having a predetermined electrode width and gap width (shown in Fig. 7).

As to claim 13: Sawasaki further shows in Figure 7 that the low effective voltage area (area corresponding to element 20) is provided in the vicinity of an end of the pixel region.

As to claim 15: Sawasaki further discloses in Figure 17 that an alignment regulating structure (element 28) for regulating the alignment of the liquid crystal is provided on at least one of the substrates, wherein the pixel region has a plurality of alignment regions in which the liquid crystal is aligned in different directions.

Claims 2-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawasaki et al. (US 2003/0043326) and Yoshida et al. (US 5936693) in view of Nishida et al. (US 2002/0030780).

With respect to claims 2 and 3: Sawasaki and Yoshida disclose all of the limitations set forth in claim 1, but do not disclose the retardation values of the liquid crystal layer thickness with respect to different wavelength satisfying the equations set forth in claims 2 and 3.

However, Nishida discloses a liquid crystal display wherein the Δn of the liquid crystal layer regardless the wavelength value is set to be constant (Paragraph 0186, wherein Δn is 0.0067) and that $d_i / \lambda_i = d_j / \lambda_j$ (Paragraph 0072) regardless of having tilt angle and white is displayed when no polarizer is provided (Paragraphs 0072-0082), therefore, the conditions set forth in claim 2 are met. Nishida further discloses that the wavelength closest to 545 nm (Paragraph 0082, wherein the wavelength is 550nm) has a thickness value of 4.5μm, therefore,

Δn*(4.5μm) = 301.5nm,

which satisfies the condition set forth in claim 3.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a liquid crystal display device as taught by Sawasaki and Yoshida wherein the retardation values of the liquid crystal layer thickness with respect to different wavelength are set as taught by Nishida, since Nishida teaches that such display characteristic prevents the display from coloring from whichever direction the display apparatus is viewed and that gradation reversal over a larger visibility angle range is also prevented (Paragraphs 0059-0061).

As to claim 5: Sawasaki and Yoshida disclose all of the limitations set forth in claim 1, but do not disclose the retardation values of the constant liquid crystal layer thickness with respect to different wavelength is between 250nm and 450nm.

However, Nishida discloses a liquid crystal display wherein the Δn of the liquid crystal layer regardless the wavelength value is set to be constant (Paragraph 0186, wherein Δn is 0.0067) and that the thickness of the liquid crystal layer is set to be 4.5 μm (Paragraph 0186), thus have a $\Delta n(\lambda k)*d = 301.5$nm, which is within 250nm and 450nm.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a liquid crystal display device as taught by Sawasaki and Yoshida wherein the retardation values of the constant liquid crystal layer thickness with respect to different wavelength is between 250nm and 450nm as taught by Nishida, since Nishida teaches that such display characteristic optimizes the brightness of a white display and the color reproduction property (Paragraph 0186).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sawasaki et al. (US 2003/0043326) and Yoshida et al. (US 5936693) in view of Aoki et al. (US 5644415).

Sawasaki and Yoshida disclose all of the limitations set forth in claim 1, but do not disclose that the threshold voltage of the low effective voltage area is higher than the threshold voltage of the other area by a predetermined voltage difference in the range from 0.1V to 2.0V.

However, Aoki discloses in Column 17 line 59 through Column 18 line 6 a liquid crystal display wherein the threshold voltage of a low effective voltage area is higher than the threshold voltage of the other area by a predetermined voltage difference; and the voltage difference is in the range from 0.1V to 2.0V.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a liquid crystal display device as taught by Sawasaki and Yoshida wherein the threshold voltage difference is as taught by Aoki et al., since Aoki et al. teach that the field angle can thus be widened and a sufficiently bright display can be secured (Column 18, lines 7-11).

Claims 6 and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (US 6466280) in view of Kubo et al. (US 6452654; hereinafter referred to as '654).

With respect to claim 6: Park discloses in Figure 5D a liquid crystal display comprising:

a pair of substrates (element 1; Column 2, lines 31-34) provided opposite to each other with one of the substrates having a pixel electrode (elements 68 and 70 combined) and the other

of the substrates having a common electrode (although not shown, but has to be present in order for the display device to function properly);

a liquid crystal sealed between the pair of substrates (Column 2, lines 54-55); and

a pixel region including at least one low effective voltage area (region corresponding to element 72, which is the transmissive region of the pixel region) in which an effective voltage applied by the pixel and the common electrodes to the liquid crystal is lower than a voltage applied between the pixel and the common electrodes at another area, the at least one low effective voltage area occupying part of the region in a predetermined area ratio, the pixel region having a threshold voltage that is different between the at least one low effective voltage area and the another area.

Park does not specifically disclose that the area ratio of the low effective voltage area to total area of each pixel region is in the range from 0.6 to 0.8.

However, '654 teaches in Column 29 lines 58-63 that in a transflective display device, the area ratio of the transmissive region to the reflective region is 60:40, hence the area ratio of the low effective voltage area to total area of each pixel region is 0.6.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a liquid crystal display device as taught by Park wherein the area ratio of the transmissive region to the total area of each pixel region is 0.6 as taught by '654, since '654 teaches that such area ratio helps to obtain good display characteristics (Column 29, lines 58-63).

As to claim 37: Park and '654 disclose all of the limitations set forth in claim 6, but do not disclose that the low effective voltage area is provided in the vicinity of an end of the pixel region.

However, '654 teaches in Figure 4 that the transmissive region (region corresponding to element 20; analogous to the low effective voltage area as previously discussed) is provided in the vicinity of an end of the pixel region.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a liquid crystal display as taught by Park and '654 wherein the transmissive region is provided in the vicinity of an end of the pixel region as taught by '654, since it would have been obvious to change the arrangement and area ratio of the transmissive region with respect to the reflective region in order to obtain the desire display characteristics.

As to claim 38: '654 further disclose in Column 26 lines 14-22 that a nematic liquid crystal having negative dielectric constant anisotropy whose initial alignment is vertical to a surface of the substrate when no voltage is applied between the pixel and common electrodes can be used in a transflective display device.

Claims 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (US 6466280) and Kubo et al. (US 6452654; hereinafter referred to as '654) in view of Nishida et al. (US 2002/0030780).

With respect to claims 27 and 28: Park and '654 disclose all of the limitations set forth in claim 6, but do not disclose color filter layers wherein the retardation values of the liquid crystal

layer thickness with respect to different wavelength satisfying the equations set forth in claims 27 and 28.

However, Nishida discloses a liquid crystal display comprising color filter layers of blue and at least one other color formed on at least one of the substrates wherein the Δn of the liquid crystal layer regardless the wavelength value is set to be constant (Paragraph 0186, wherein Δn is 0.0067) and that $d_i / \lambda_i = d_j / \lambda_j$ (Paragraph 0072) regardless of having tilt angle and white is displayed when no polarizer is provided (Paragraphs 0072-0082), therefore, the conditions set forth in claim 27 are met. Nishida further discloses that the wavelength closest to 545 nm (Paragraph 0082, wherein the wavelength is 550nm) has a thickness value of 4.5μm, therefore,

Δn*(4.5μm) = 301.5nm,

which satisfies the condition set forth in claim 28.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a liquid crystal display device as taught by Park and '654 wherein the retardation values of the liquid crystal layer thickness with respect to different wavelength of the plurality of color filter layers are set as taught by Nishida, since Nishida teaches that such display characteristic prevents the display from coloring from whichever direction the display apparatus is viewed and that gradation reversal over a larger visibility angle range is also prevented (Paragraphs 0059-0061).

As to claim 30: Park and '654 disclose all of the limitations set forth in claim 6, but do not disclose color filter layers wherein the retardation values of the constant liquid crystal layer thickness with respect to different wavelength is between 250nm and 450nm.

However, Nishida discloses a liquid crystal display comprising color filter layers of blue and at least one other color formed on at least one of the substrates wherein the Δn of the liquid crystal layer regardless the wavelength value is set to be constant (Paragraph 0186, wherein Δn is 0.0067) and that the thickness of the liquid crystal layer is set to be 4.5 μm (Paragraph 0186), thus have a $\Delta n(\lambda k)*d = 301.5$nm, which is within 250nm and 450nm.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a liquid crystal display device as taught by Park and '654 wherein the retardation values of the constant liquid crystal layer thickness with respect to different wavelength of the color filter layers is between 250nm and 450nm as taught by Nishida, since Nishida teaches that such display characteristic optimizes the brightness of a white display and the color reproduction property (Paragraph 0186).

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (US 6466280) and Kubo et al. (US 6452654; hereinafter referred to as '654) in view of Aoki et al. (US 5644415).

Park and '654 disclose all of the limitations set forth in claim 6, but do not specifically disclose that the threshold voltage of the low effective voltage area is higher than the threshold voltage of the other area by a predetermined voltage difference in the range from 0.1V to 2.0V.

However, Aoki discloses in Column 17 line 59 through Column 18 line 6 a liquid crystal display wherein the threshold voltage of a low effective voltage area is higher than the threshold voltage of the other area by a predetermined voltage difference; and the voltage difference is in the range from 0.1V to 2.0V.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a liquid crystal display as taught by Park and '654 wherein the threshold voltage difference is as taught by Aoki, since Aoki teaches that the field angle can thus be widened and a sufficiently bright display can be secured (Column 18, lines 7-11).

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (US 6466280) and Kubo et al. (US 6452654; hereinafter referred to as '654) in view of Iijima (US 6909479).

Park and '654 disclose all of the limitations set forth in claim 6, but do not specifically disclose that the area ratio varies depending on a center transmission wavelength λ of a color filter layer that the pixel region has.

However, Iijima teaches in Figure 3 that the area of transmissive region in each pixel region corresponding to a specific color of the color filter layer differs, hence the area ratio of the low effective region with respect to each pixel region varies depending on a center transmission wavelength of a color filter layer.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a liquid crystal display as taught by Park and '654 wherein the area of transmissive region in each pixel region corresponding to a specific color of the color filter layer differs as taught by Iijima, since Iijima teaches that such configuration helps to suppress the influence that irregularities in the spectral properties of the illumination light has on the observed light (Column 14, lines 27-34).

Claims 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (US 6466280) and Kubo et al. (US 6452654; hereinafter referred to as '654) in view of Okumura (US 7113238).

With respect to claims 33 and 35: Park and Kubo et al. disclose all of the limitations set forth in Claim 6, but do not disclose that the low effective voltage area has a dielectric layer formed with a predetermined thickness or an effective voltage decreasing slit on at least one of the electrodes.

However, Okumura teaches in Figure 4B of forming a dielectric layer (element 37) and a slit (element 94) in the transmissive region (analogous to the low effective voltage area as previously discussed) on at least one of the electrodes.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a liquid crystal display as taught by Park and '654 wherein a dielectric layer and a slit is formed on at least one of the electrodes in the transmissive region as taught by Okumura et al., since such structures helps to obtain a multi-domain display having improved viewing angle.

As to claims 34 and 36: Okumura further discloses in Figure 4A that the dielectric layer (element 37) and the slit (element 94) are formed like stripes having a predetermined electrode width and gap width.

Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (US 6466280) and Kubo et al. (US 6452654; hereinafter referred to as '654) in view of Kubo et al. (US 2002/0075436; hereinafter referred to as '436).

Park and '654 disclose all of the limitations set forth in the previous claims, but do not disclose that the liquid crystal display further comprising an alignment regulating structure for regulating the alignment of the liquid crystal provided on at least one of the substrates, wherein the pixel region has a plurality of alignment regions in which the liquid crystal is aligned in different directions.

However, '436 discloses in Figure 29A a liquid crystal display comprising of alignment regulating structures (element 22b) on at least one of the substrates.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a liquid crystal display as taught by Park and '654 wherein the liquid crystal display further comprises alignment regulating structures as taught by '436, since '436 teaches that the alignment structures helps to stabilize the radially-inclined orientation regardless of the applied voltage, thus results in a desirable stress resistance (Paragraph 0285).

Allowable Subject Matter

Claims 4 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

None of the prior arts either alone or in combination fairly teach or suggest a liquid crystal display as claimed in claims 1 and 6, wherein a cell thickness of the pixel region is substantially constant regardless of the center transmission wavelengths satisfies the conditions

set forth in claims 4 and 29. Therefore, claims 4 and 29 are deemed non-obvious and inventive over the prior arts, thus are allowable.

Response to Arguments

Applicant's arguments with respect to claims 1-5, 7-10 and 12-15 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed on 4/07/08 regarding claims 5 and 30 have been fully considered but they are not persuasive.

Applicants argue that Nishida failed to teach that the thickness of the liquid crystal layer being constant. However, the argument is not found persuasive, since Nishida teaches in Paragraph 0186 of having a liquid crystal layer having a constant thickness (wherein the thickness of the liquid crystal layer is 4.5μm). Therefore, the claims remain rejected with the reasoning as set forth above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WEN-YING PATTY CHEN whose telephone number is (571)272-8444. The examiner can normally be reached on 8:00-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on (571)272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WEN-YING PATTY CHEN
Examiner
Art Unit 2871

/W. P. C./
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/David Nelms/
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